

Annual Water Quality Report for 2022
City of Johnstown, Aspen Hills Water District & Fulton Co WD#1
33-41 East Main Street, Johnstown, NY 12095
Public Water Supply Identification Number NY1700019, NY1730083 & NY1730066

INTRODUCTION

To comply with State regulations, the City of Johnstown, will be annually issuing a report describing the quality of your drinking water. The purpose of this report is to raise your understanding of drinking water and awareness of the need to protect our drinking water sources. Last year, we conducted tests for over 80 contaminants. We detected 1 of those contaminants at a level higher than the State allows. This report is an overview of last year's water quality. Included are details about where your water comes from, what it contains, and how it compares to New York State standards. Our constant goal is and always has been, to provide to you a safe and dependable supply of drinking water. We want you to understand the efforts we make to continually improve the water treatment process and to protect our water resources. If you have any questions about this report or concerning your drinking water, please contact: *Christopher Vose, City Engineer; Telephone (518) 921-1265*. We want our valued customers to be informed about their drinking water. If you want to learn more, please attend any of our regularly scheduled City Council meetings. They are held on the 3rd Monday of each month at 6:00 PM, in City Hall in the council chambers 2nd floor at 33-41 East Main Street, Telephone number (518) 736-4014; TDD# 1-800-662-1220.

WHERE DOES OUR WATER COME FROM?

The City of Johnstown operates two slow sand filtration plants. The plants are located at Christman and Cork Center. Our source of water is located west of the City, in the Town of Johnstown and is comprised of three reservoirs: 1) Christman Reservoir with a 10,000,000-gallon capacity; 2) Cork Center Reservoir with a 140,000,000-gallon capacity; 3) Larrabee Reservoir with a 40,000,000-gallon capacity. The three reservoirs have a combined storage capacity of 200,000,000 gallons surrounded by a 2,000-acre watershed. From the reservoirs the water flows by gravity feed to each of the slow sand filtration plants. The combined filtration capacity for both plants is 2,500,000 gallons of water per day. The water is filtered through sand to remove any small particles and then disinfected with chlorine to protect against contamination from harmful bacteria and other organisms. We have 90,000-gallon clearwell at the Christman Treatment Plant and a 570,000-gallon clearwell at the Cork Center Treatment Plant. The clearwells provide storage capacity and additional contact time for disinfection. Water flows from the clearwells to a 2,500,000-gallon tank at Maylanders in the northern part of the city. This allows us to store water and to provide adequate fire protection.

In general, the sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs and wells. As water travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals and in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activities. Contaminants that may be present in source water include microbial contaminants; inorganic contaminants; pesticides and herbicides; organic chemical contaminants; and radioactive contaminants. In order to ensure that tap water is safe to drink, the State and EPA prescribe regulations, which limit the amount of certain contaminants in water, provided by public water systems. The State Health Department's and the FDA's regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

FACTS AND FIGURES

The City of Johnstown provides water through 3,500 service connections to a population of approximately 8,157 people and to the residents of the Aspen Hills Water District. Our average daily demand is 1,804,500 gallons of water. Our single highest day was 2,412,200 gallons. In 2022 we treated 658,576,000 gallons of water between the Christman and Cork Plants. A total of 582,554,256 gallons of water was billed to customers. Un-billed water (municipal buildings, parks, downtown flower watering) accounted for 3,500,000 gallons being used. Water for fire protection, hydrant flushing and leaks is estimated at 76,021,744 gallons being used. A total of 100,474,449 gallons of water (or 11.5%) was lost in the transmission and distribution system.

The city bills each and every water customer semi-annually based on water meter usage. Large industrial users are billed monthly based on water meter usage. The average annual residential bill is \$338.14 and the average annual industrial bill is \$111,911.07.

ARE THERE CONTAMINANTS IN OUR DRINKING WATER?

In accordance with State regulations, the City of Johnstown routinely monitors your drinking water for numerous contaminants. We test your drinking water for inorganic contaminants, radiological contaminants, lead and copper, nitrate, volatile organic contaminants, and synthetic organic contaminants. In addition, we test 10 samples for coliform bacteria each month and chlorine, turbidity and pH once a day. The tables presented on page 4 depict which contaminants were detected in your drinking water. The state allows us to monitor for certain contaminants less than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year. Some of the data, though representative of the water quality, is more than one year old. For a listing of the parameters we analyzed that were not detected along with the frequency of testing for compliance with the NYS Sanitary Code, see Appendix A.

It should be noted that all drinking water, including bottled drinking water, may be reasonably expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily pose a health risk. More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline (800-426-4791) or the New York State Department of Health, Herkimer District Office at (315) 866-6879.

WHAT DOES THIS INFORMATION MEAN?

As you can see by the table, our system had 1 violation. We exceeded the Maximum Contaminant Level for odor at the Christman WTP and are required to furnish the following information: *Odor as measured by this standard procedure has no health effects; although several contaminants exert odors when they are present at levels near their MCLs. Odor is an important quality factor affecting the drinkability of water.* The sample was from the entry point and the fact that it was chlorinated may have influence the odor determination in the lab. We had not received any complaints with regard to odor at that time and may have been an isolated incident.

New York State has adopted the first in the nation drinking water standard for 1,4-Dioxane along with one of the lowest maximum contaminant levels for PFOA and PFOS. Public Water Supplies in NYS are required to test for PFOA, PFOS and 1,4-Dioxane. PFOA and PFOS have Maximum Contaminant Levels (MCL) of 10 parts per trillion each while 1,4-Dioxane has an MCL of 1.0 part per billion. The City of Johnstown Water Department completed 4th quarter monitoring in 2022.

"In 2022, we were required to collect and analyze drinking water samples for 23 unregulated contaminants and 2 regulated contaminants on 21 samples from our finished water in, December 2022. One contaminant that is currently unregulated and 1 contaminant that is regulated were detected in 1 sample. The data is shown in the table on page 4. The list of Unregulated and Regulated Compounds with their abbreviations and full chemical name can be found on the last page of this report. You may obtain the monitoring results by calling Senior Water Plant Operator John Denmark at (518) 774-3765."

IS OUR WATER SYSTEM MEETING OTHER RULES THAT GOVERN OPERATIONS?

During 2022, our system was in compliance with applicable State drinking water operating, monitoring and reporting requirements.

DO I NEED TO TAKE SPECIAL PRECAUTIONS?

Although our drinking water met or exceeded state and federal regulations, some people may be more vulnerable to disease causing microorganisms or pathogens in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek from their health care provider about their drinking water. EPA/CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium, Giardia and other microbiological pathogens are available from the Safe Drinking Water Hotline (800-426-4791).

WHAT IS THE SOURCE WATER ASSESSMENT PROGRAM (SWAP)?

To emphasize the protection of surface and ground water sources used for public drinking water; Congress amended the Safe Drinking Water Act (SDWA) in 1996. The amendments require that New York State Department of Health's Bureau of Public Water Supply Protection is responsible for ensuring that source water assessments are completed for all of New York's public water systems.

A source water assessment provides information on the potential contaminant threats to public drinking water sources:

- ◆ each source water assessment will: determine where water used for public drinking water comes from (delineate the source areas)
- ◆ Inventory potential sources of contamination that may impact public drinking water sources
- ◆ Assess the likelihood of a source water area becoming potential contaminated

A SWAP summary for our water supply has not been completed by NYSDOH at this time. It will be presented in next year's report.

INFORMATION ON LEAD

Lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. The City of Johnstown is responsible for providing high quality drinking water and removing lead pipes, but cannot control the variety of materials used in plumbing components in your home. You share the responsibility for protecting yourself and your family from the lead in your home plumbing. You can take responsibility by identifying and removing lead materials within your home plumbing and taking steps to reduce your family's risk. Before drinking tap water, flush your pipes for several minutes by running your tap, taking a shower, doing laundry or a load of dishes. You can also use a filter certified by an American National Standards Institute accredited certifier to reduce lead in drinking water. If you are concerned about lead in your water and wish to have your water tested, contact John Denmark at (518) 774-3765. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available at <http://www.epa.gov/safewater/lead>.

WATER CONSERVATION TIPS

The City of Johnstown encourages water conservation. There are a lot of things you can do to conserve water in your own home. Conservation tips include:

- ◆ *Use water saving showerheads*
- ◆ *Repair all leaks in your plumbing system*
- ◆ *Water your lawn sparingly in the early morning or in the late evening*
- ◆ *Do only full loads of wash and dishes*
- ◆ *Wash your car with a bucket and hose with a nozzle*
- ◆ *Don't cut the lawn too short; longer grass saves water*

CAPITAL IMPROVEMENTS

- ◆ There is a city-wide meter replacement program for 2023.
- ◆ Water main replacement on Rt. 30A between Rt. 67 and Fon Clair Street.
- ◆ Valve replacement program

CLOSING

Thank you for allowing us to continue providing your family with clean, quality water this year. In order to maintain a safe and dependable water supply we sometimes need to make improvements that will benefit our customers. We ask that all our customers help us protect our water sources, which are the heart of our community. Please call our office if you have questions.

The City of Johnstown is an equal opportunity provider and employer. Discrimination is prohibited by Federal Law. Complaints of discrimination may be filed with USDA, Director, Office of Civil Rights Room 326-W, Whitten Building, 14th and Independence Ave., SW, Washington, DC 20250-9410.

CITY OF JOHNSTOWN TEST RESULTS
Public Water Supply Identification Number NY1700019

Contaminant	Violation Y/N	Date of Sample	Level Detected	Unit Measurement	MCLG	MCL	Likely Source of Contamination
Microbiological Contaminants							
Turbidity ¹ (Cork Center) Highest Turbidity	N	3/22/22	0.656	NTU	N/A	TT=5 NTU	Soil runoff
			100%				
Turbidity ¹ (Christman Filtration Plant) Highest Turbidity	N	3/26/22	0.169	NTU	N/A	TT= % samples <1.0	
			100%				
Inorganic Contaminants (Results in Bold are from Christman Plant those in plain type are from Cork, when only one value results are the same at both plants)							
Barium	N	1/12/22	6.4 -10.0	µg/l	2000	MCL=2000	Naturally Occurring
Chloride	N	1/12/22	7.1 - 23.7	mg/l	N/A	MCL=250	Naturally occurring or indicative of road salt contamination.
Copper Range of values	N	9/7/20- 10/9/20	599 ² 16.1-1050	mg/l	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Iron	N	1/12/22	24.7 -35.3	µg/l	N/A	MCL=300	Naturally occurring.
Manganese	N	1/12/22	ND -9.2	µg/l	N/A	MCL=300	Naturally occurring.
Lead Range of values	N	9/7/20- 10/9/20	3.3 ³ ND-0.291	µg/l	0	AL=15	Corrosion of household plumbing systems; erosion of natural deposits;
Nickel	N	1/12/22	0.5 -1.3	µg/l	N/A	N/A	Naturally Occurring
Odor	Y	1/12/22	4 -ND	units	N/A	MCL=3	Natural sources
pH	N	1/12/22	5.5	units	N/A	6.5-8.5	
Sodium ⁴	N	1/12/22	4.5 – 12.3	mg/l	N/A	N/A	Naturally occurring; Road salt; Water softeners; Animal waste
Zinc	N	1/12/22	60.4 -27.4	µg/l	N/A	MCL=5000	Naturally Occurring
Synthetic Organic Chemicals							
Benzo(a)pyrene (Christman)	N	5/10/22	0.020	µg/l	0	MCL=0.2	Leaching from lining of water storage tanks and distribution lines.
Unregulated Polyfluoroalkyl Substances and Regulated PFOA/PFOS (highlighted in boldface)							
PFOA (Cork Center)	N	12/5/22	0.46	ng/l	N/A	MCL=10 ^{7,8,9}	Released into the environment from widespread use in commercial and industrial applications.
PFPeA (Cork Center)	N		0.52				
Stage 2 Disinfection Byproducts (Quarterly samples)							
Stage 2 Haloacetic Acids (HAA5) (average) ⁵ Range of Values for HAA5 Fulton Co. Nursing Home	N	2/8/22 5/10/22 8/9/22 11/2/22	268.3 16.6-37.1	µg/l	N/A	MCL=60	By-product of drinking water chlorination
Stage 2 Haloacetic Acids (HAA5) (average) ⁵ Range of Values for HAA5 King Cole Laundry	N		29.2 15.2-37.6				
Stage 2 Haloacetic Acids (HAA5) (average) ⁵ (Aspen Hills WD)	N		29.4 9.8-24.5	µg/l	N/A	MCL=60	
Stage 2 Total Trihalomethanes (TTHM) (average) ⁵ Range of values for TTHM Fulton Co. Nursing Home	N		57.5 29-47.2	µg/l	N/A	MCL=80	
Stage 2 Total Trihalomethanes (TTHM) (average) ⁵ Range of values for TTHM King Cole Laundry	N		58.3 30.5-47.1	µg/l	N/A	MCL=80	
Stage 2 Total Trihalomethanes (TTHM) (average) ⁵ (Aspen Hills WD) Fulton Co. WD#1	N		32.9 14.1-32.9	µg/l	N/A	MCL=80	
Stage 2 Haloacetic Acids (HAA5) ⁵	N	1/12/22 4/13/22	10.9 1.2-37.8	µg/l	N/A	MCL=60	By-product of drinking water chlorination
Stage 2 Total Trihalomethanes (TTHM) ⁵	N	7/13/22 10/11/22	52.6 39.2-67	µg/l	N/A	MCL=80	By-product of drinking water chlorination
Chlorine Residual (average) Cork Center (range)	N	Daily Testing	1.2 0.6-1.6	mg/l	N/A	MCL=4	Used in the treatment and disinfection of drinking water
Chlorine Residual (average) Christman (range)	N		1.0 0.7-1.5				

Raw Water E.coli Testing Round 2 LT2ESESWTR ⁸ (Biweekly for a total of 26 samples)							
Cork Center Reservoir	N/A	10/16/17 thru 9/17/18	10/2/17- 9/17/18	36.5 ND-238 42 ND-921	E.coli/100 ml	Average >100 E.coli/100ml	Human & animal fecal contamination
Christman Reservoir	N/A						

FOOTNOTES-

- Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of the effectiveness of our filtration system. Level detected represents the highest level detected. State regulations require that turbidity must always be less than or equal to 5.0 NTU. The regulations require that 95% of the turbidity samples collected have measurements below 1.0 NTU.
- The level presented represents the 90th percentile of 22 test sites. The action level for copper was exceeded at none of the 22 sites tested.
- The level presented represents the 90th percentile of 22 test sites. The action level for lead was exceeded at one of the 22 sites tested.
- Water containing more than 20 ppm should not be consumed by persons on severely restricted sodium diets.
- The average is based on a Locational Running Annual Average (LRAA). The averages shown for Johnstown represent the highest LRAA for the 4 quarters in 2022. The highest HAA5 & TTHM LRAA for both sample sites were in the 4th quarter of 2022. The LRAAs for Aspen Hills WD were the highest for the HAA5s and THMs in the 1st quarter of 2022. The LRAA for Fulton Co. WD had the highest HAA5 and THM in the 4th quarter of 2022.
- Under the LT2 (Long Term Enhanced Surface Water Treatment Rule, small surface water or GUIDI systems could monitor for E. coli biweekly for 1 year instead of performing more costly Cryptosporidium/Giardia testing to determine treatment requirements for their water sources. An average E. coli concentration greater than 100/100 ml of sample would trigger Cryptosporidium and Giardia monitoring for 24 months. The averages from Cork and Christman were below the trigger level to require Cryptosporidium monitoring.
- Only PFOA and PFOS have a regulatory limit of 10 ng/l each.
- All perfluoroalkyl substances, besides PFOA and PFOS, are considered Unspecified Organic Contaminants (UOC) which have an MCL=0.05 mg/L or 50,000 ng/l.
- USEPA Health Advisory Levels identify the concentration of a contaminant in drinking water at which adverse health effects and/or aesthetic effects are not as new Information becomes available. PFBS (2000 ng/l) and HFPO-DA (10 ng/l) also have Health Advisory Levels.

Non-Detects (ND) - laboratory analysis indicates that the constituent is not present.

Parts per million (ppm) or Milligrams per liter (mg/l) - one part per million corresponds to one minute in two years or a single penny in \$10,000.

Parts per billion (ppb) or Micrograms per liter - one part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.

Parts per trillion (ppt) or Nanograms per liter (nanograms/l) - one part per trillion corresponds to one minute in 2,000,000 years, or a single penny in \$10,000,000,000.

Nephelometric Turbidity Unit (NTU) - nephelometric turbidity unit is a measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

90th Percentile Value- The values reported for lead and copper represent the 90th percentile. A percentile is a value on a scale of 100 that indicates the percent of a distribution that is equal to or below it. The 90th percentile is equal to or greater than 90% of the lead and copper values detected at your water system

Treatment Technique (TT) - A treatment technique is a required process intended to reduce the level of a contaminant in drinking water.

Maximum Contaminant Level - The "Maximum Allowed" (MCL) is the highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

Maximum Contaminant Level Goal - The "Goal" (MCLG) is the level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

Maximum Residual Disinfectant Level (MRDL): The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

Maximum Residual Disinfectant Level Goal (MRDLG): The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contamination

Locational Running Annual Average (LRAA) - The LRAA is calculated by taking the average of the four most recent samples collected at each individual site.

N/A-not applicable

Unregulated Perfluoroalkyl Substances / Regulated			
pfbs	Perfluorobutanesulfonic acid	NA	Hfpo-da
pfhpa	Perfluoroheptanoic acid	pfba	Perfluorobutanoic acid
pfhxs	Perfluorohexane sulfonic acid	6:2 fts	Perfluorooctane sulfonic acid
pfna	Perfluorononanoic acid	4:2 fts	Perfluorohexane sulfonic acid
pfos	Perfluorooctane sulfonic acid	8:2 fts	Perfluorodecane sulfonic acid
pfoa	Perfluorooctanoic acid	pfmpa	Perfluoro
pfda	Perfluorodecanoic acid	pfpea	Perfluoropentanoic acid
pfdoa	Perfluorododecanoic acid	pfmba	Perfluoro-4-methoxybutanoic acid
pfhxa	Perfluorohexanoic acid	pfeesa	Perfluoro(2-ethoxyethane)sulphonic acid
pfuna	Perfluoroundecanoic acid	nfdha	Nonafluoro-3,6-dioxahexanoic acid
NA	n11cl-pf3ouds	pfpes	Perfluoropentane sulfonic acid
NA	9cl-pf3ons	pfhps	Perfluoroheptane sulfonic acid
NA	Adona		

Notes: The two regulated compounds are in italics and have MCLs of 10 ng/L each. The remaining 23 compounds are unregulated.

All perfluoroalkyl substances, besides PFOA and PFOS, are considered Unspecified Organic Contaminants (UOC) which have an MCL = 0.05 mg/L. or 50,000 ng/L

